CLAIMS

1. A method for manufacturing a fuel cell separator for sandwiching from both sides via diffusion layers an anode and a cathode disposed on an electrolyte membrane, the fuel cell manufacturing method comprising:

a step of obtaining a mixture by mixing a thermoplastic resin and a conductive material;

a step of forming with this mixture a separator starting material having gas flow passage grooves in a contact face thereof to contact the diffusion layer; and

a step of irradiating the contact face of this separator starting material with an electron beam.

2. A fuel cell separator manufacturing method according to claim 1, characterized in that

the thermoplastic resin is a resin selected from ethylene / vinyl acetate copolymers, ethylene / ethyl acrylate copolymers, straight-chain low-density polyethylene, polyphenylene sulfide and modified polyphenylene oxide, and

the conductive material is carbon particles of at least one selected from black lead, Ketchen black and acetylene black.

3. A method for bonding a fuel cell separator and an electrode diffusion layer, comprising:

disposing a carbon fiber electrode diffusion layer on a thermoplastic resin separator;

applying a welding pressure to the electrode diffusion layer